



Attorney Docket No. 172.2USDC2  
**PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Bischofberger et al.

Serial No.: 09/801,164

Group No.: 1653

Filed: March 7, 2001

Examiner: D. Lukton

For: Nucleotide Analogs

Assistant Commissioner for Patents

Washington, D.C. 20231

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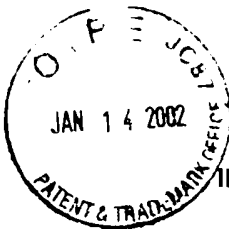
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The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 CFR 1.97 (b).

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**INFORMATION DISCLOSURE STATEMENT (modified)**

**List of Sections Forming Part of This Information Disclosure Statement.**

The following sections are being submitted for this Information Disclosure Statement:

1. ☒ Preliminary Statements
2. ☒ FORM PTO - 1449 (Modified)
3. ☒ Identification of Prior Application in Which Listed Information Was Already Cited.

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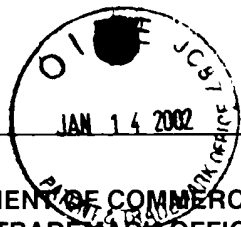
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FORM PTO-1449

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PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE STATEMENT  
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(37 CFR 1.98(b))

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GROUP ART UNIT: 1653

## U.S. PATENT DOCUMENTS

EXAMR'S INITIALS	PATENT NO.	ISSUE DATE	PATENTEE	CLASS/ SUBCLASS	FILING DATE
	3,524,846	8/18/1970	Moffatt et al.		6/2/1967
	4,369,181	1/18/1983	Miller et al		8/5/1981
	4,590,269	5/20/1986	Prisbe et al.	544/244	3/29/1984
	4,670,424	6/2/1987	MacCoss et al.	514/81	1/6/1984
	4,724,233	2/9/1988	De Clercq et al	514/81	4/21/1986
	4,801,710	1/31/1989	MacCoss et al.	544/244	2/2/1988
	4,808,716	2/28/1989	Holy et al.	544/244	4/25/1986
	4,968,788	11/6/1990	Farquhar	536/27	1/23/1989
	5,043,339	8/27/1991	Beauchamp		12/18/1989
	5,047,533	9/10/1991	Reist et al.		1/22/1990
	5,142,051	8/25/1992	Holy et al	544/244	7/17/1987
	5,208,221	5/4/1993	Kim et al	514/81	11/29/1990
	5,247,085	9/21/1993	Harnden et al		5/29/1992
	5,302,585	4/12/1994	Yu et al.	514/81	
	5,352,786	10/4/1994	Jindrich et al.	544/243	
	5,386,030	1/31/1995	Kim et al	544/243	2/11/1993
	5,391,723	2/21/1995	Priest		2/16/1993
	5,495,006	2/27/1996	Climie et al.		3/1/1993
	5,527,803	6/18/1996	Halazy et al.		6/6/1995
	5,591,851	1/7/1997	Alexander, Petr		2/5/1996
	5,618,793	4/8/1997	Cooper et al.		8/1/1995
	5,618,803	4/8/1997	Bodor		11/15/1994
	5,618,964	4/8/1997	Cheng et al.		6/7/1995
	5,656,745	8/12/1997	Bischofberger et al.		9/17/1993

## FOREIGN PATENT DOCUMENTS

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	0 173 624 A2	3/5/1986	EUROPE		
	0 269 947 A1	6/8/1988	EUROPE		
	0 319 228 A3	11/28/1988	EUROPE		
	0 335 770 A2	10/4/1989	EUROPE		
	0 343 133 A1	11/23/1989	EUROPE		
	0 353 955 A2	2/7/1990	EUROPE		
	0 369 409 A1	5/23/1990	EUROPE		
	0 369 409 B1	1/4/1995	EUROPE		
	0 398 231 A2	11/22/1990	EUROPE		
	0 404 296 A1	12/27/1990	EUROPE		
	0 405 748 A1	1/2/1991	EUROPE		
	0 465 297 A1	1/8/1992	EUROPE		
	0 468 119 A1	1/29/1992	EUROPE		
	0 468 866 A1	1/29/1992	EUROPE		
	0 481 214 A1	4/22/1992	EUROPE		
	0 494 370 A1	7/15/1992	EUROPE		
	0 531 597 A1	3/17/1993	EUROPE		
	0 630 381 B1	12/28/1994	EUROPE		
	0 632 048 A1	6/23/1994	EUROPE		
	0.206.459	12/30/1986	EUROPE		
	0.253.412	1/20/1988	EUROPE		
	0.479.640 A2	9/23/1991	EUROPE		
	1.243.214	8/18/1971	UNITED KINGDOM		
	2009 834	9/17/1970	DE		No
	DE 41 38 584	5/27/1993	GERMANY		
	WO 88/05438	7/28/1988	PCT		

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	WO 91/19721	12/26/1991	PCT		
	WO 92/01698	2/6/1992	PCT		
	WO 92/09611	6/11/1992	PCT		
	WO 92/13869	8/20/1992	PCT		
	WO 94/03466	2/17/1994	PCT		
	WO 94/03467	2/17/1994	PCT		
	WO 95/07919	3/23/1995	PCT		
	WO 95/07920	3/23/1995	PCT		

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**OTHER DOCUMENTS**

EXAMR'S INITIALS	ARTICLE
	Alexander et al., "", 59:1853, COLLECT CZECH CHEM COMMUN, 1994
	Amari et al., "Isolation of experimental anti-AIDS glycerophospholipids by micro-preparative reversed-phase high-performance liquid chromatography", 590:153-161, J CHROMATOGR, 1992
	Andrei et al., "Comparative Activity of Selected Antiviral Compounds against Clinical Isolates of Human Cytomegalovirus", 10(12):1026 - 1033, EUR J CLIN MICROBIOL INFECT DIS, 1991
	Andrei et al., "Comparative Activity of Selected Antiviral Compounds Against Clinical Isolates of Varicella Zoster Virus", 14:318-328, EUR J CLIN MICROBIOL INFECT DIS, 1995
	Bai et al., "Structural Specificity of Mucosal-Cell Transport and Metabolism of Peptide Drugs: Implication for Oral Peptide Drug Delivery", 9:969-979, PHARM RES, 1992
	Barnard et al., "Selective inhibition of cytomegaloviruses by 9-(3'-ethylphosphono-1'-hydroxymethyl-1'-propyloxy-methyl)guanine", 22:77-89, ANTIVIRAL RES, 1993
	Beres, "Synthesis and Antitumor and Antiviral Properties of 5-Halo- and 5-(Trifluoromethyl)-2'-deoxyuridine 3',5'-Cyclic Monophosphates and Neutral Triesters", 29:1243-1249, J MED CHEM, 1986
	Bischofberger et al., "1-[[[(S)-2-Hydroxy-2-Oxo-1,4,2-Dioxaphosphorinan-5-yl]Methyl] Cytosine, an Intracellular Prodrug for (S)-1-(3-Hydroxy-2-Phosphonylmethoxypropyl)Cytosine with Improved Therapeutic Index In Vivo", 38:2387-2391, ANTIMICRO AG & CHEMO, 1994
	Bronson et al., "Synthesis and Biological Activity of Carbocyclic Derivatives of the Potent Antiviral Agent 9-[2-(Phosphonomethoxy)Ethyl]Guanine (PMEG)", 2:685-690, BIOORG MED CHEM LETT, 1992

EXAMINER

DATE CONSIDERED

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EXAMR'S INITIALS	ARTICLE
	Bruice et al., "Hydrolysis of a Phosphate Diester by Simultaneous Carboxylate and Carboxyl Group Participation in a Rigid System with Kinetically Unfavorable Rotamers Frozen Out", 117:3639-3640, J AM CHEM SOC, 1995
	Charvet et al., "Inhibition of Human Immunodeficiency Virus Type 1 Replication by Phosphonoformate-- and Phosphonoacetate--2',3'-Dideoxy-3'-thiacytidine Conjugates", 37:2216-2223, J MED CHEM, 1994
	Coates et al., "(-)-2'-Deoxy-3'-Thiacytidine Is a Potent, Highly Selective Inhibitor of Human Immunodeficiency Virus Type 1 and Type 2 Replication In Vitro", 36(4):733-739, ANTIMICRO AG & CHEMO, 1992
	Colla et al., "Synthesis and Antiviral Activity of Water-Soluble Esters of Acyclovir [9-[(2-Hydroxyethoxy)methyl]guanine]", 26:602-604, J MED CHEM, 1983
	Curley et al., "Synthesis and anti-HIV evaluation of some phosphoramidate derivatives of AZT: studies on the effect of chain elongation on biological activity", 14:345-356, ANTIVIRAL RES, 1990
	Davies et al., "2'-Nor-2'-deoxyguanosine is an effective therapeutic agent for treatment of experimental herpes keratitis", 7:119-125, ANTIVIRAL RES, 1987
	Dudley et al., "Pharmacokinetics of Stavudine in Patients with AIDS or AIDS-Related Complex", 166(3):480-485, The Journal of Infectious Diseases, 1992
	Duke et al., "In vitro and in vivo activities of phosphate derivatives of 9-(1,3-dihydroxy-2-propoxymethyl)-guanine against cytomegaloviruses", 6:299-308, ANTIVIRAL RES, 1986
	Engel, R., "Phosphonates as Analogues of Natural Phosphates", 77(3):349-367, CHEM REV, 1977
	Farquhar et al., "Biologically Reversible Phosphate-Protective Groups", 72:324-325, J PHARM SCI, 1983
	Farrow et al., "Synthesis and Biological Properties of Novel Phosphotriesters: A New Approach to the Introduction of Biologically Active Nucleotides into Cells", 33:1400-1406, J MED CHEM, 1990
	Feng et al., "Combined treatment with 2'-nor-cGMP and ganciclovir against cytomegalovirus infection in a guinea pig model", 19:193-206, ANTIVIRAL RES, 1992
	Field et al., "Efficacy of 2'-nor-cyclicGMP in treatment of experimental herpes virus infections", 6:329-341, ANTIVIRAL RES, 1986
	Freed et al., "Evidence for Acyloxymethyl Esters of Pyrimidine 5'-Deoxyribonucleotides as Extracellular Sources of Active 5'-Deoxyribonucleotides in Cultured Cells", 38:3193-3198, BIOCHEM PHARM, 1989
	Freeman et al., "3'-Azido-3',5'-dideoxythymidine-5'-methylphosphonic Acid Diphosphate: Synthesis and HIV-1 Reverse Transcriptase Inhibition", 35:3192-3196, J MED CHEM, 1992
	Gabrielsen et al., "Synthesis and In Vivo Anti-RNA-Viral Evaluation of a Phosphoramidate Derivative of 6-Azaauridine; Orotidylic Acid Decarboxylase Inhibitors, Pyrazofurin and 6-Azaauridine; and 2-Thio-6-azauridine and its Triacetate", 17(1):149, ANTIVIRAL RES, 1992

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EXAMR'S INITIALS	ARTICLE
	Glazier et al., "Potent Topical Anti-Herpes Activity of a Lipophilic Phosphorus Prodrug for the Antiviral Agent PMEA", Page A306 - Poster, 8th International Conference on Antiviral Research, Santa Fe, NM, April 23-28, 1995
	Gumport et al, "Structure of the DNA Ligase-Adenylate Intermediate: Lysine (epsilon-amino)-Linked Adenosine Monophosphoramidate", 68(10):2559-2563, PROC NATL ACAD SCI, 1971
	Harnden et al, "Synthesis and Antiviral Activity of 9-Alkoxy purines. 1. 9-(3-Hydroxypropoxy)- and 9-[3-Hydroxy-2-(hydroxymethyl)propoxy]purines", 33:187-196, J MED CHEM, 1990
	Hasegawa et al., "Prodrugs of 2',3'-Didehydro-3'-deoxythymidine", 82(12):1232-1236, J PHARM SCI, Dec 1993
	Hitchcock et al., "The Cyclic Congener of Cidofovir has Reduced Nephrotoxicity in Three Species", 26:A358 (poster), 8th ISAR Conference, Santa Fe, New Mexico, April 23 - 25, 1995
	Ho et al, "Intracellular Metabolism of the Antiherpes Agent (S)-1-[3-Hydroxy-2-(phosphonylmethoxy)propyl]cytosine", 41:197-202, MOL PHARM, 1992
	Holy et al, "Acyclic nucleotide analogues: synthesis, antiviral activity and inhibitory effects on some cellular and virus-encoded enzymes in vitro", 13:295-312, ANTIVIRAL RES, 1990
	Holy et al, "Synthesis of (3-Hydroxy-2-Phosphonylmethoxypropyl) Derivatives of Heterocyclic Bases", 54:2470-2501, COLLECT CZECH CHEM COMMUN, 1989
	Hostetler et al., "Synthesis and Antiretroviral Activity of Phospholipid Analogs of Azidothymidine and Other Antiviral Nucleosides", 265(11):6112-6117, J BIOL CHEM, 1990
	Jacobson et al., "Phase I Trial of Valaciclovir, the L-Valyl Ester of Acyclovir, in Patients with Advanced Human Immunodeficiency Virus Disease", 38(7):1534-1540, ANTIMICRO AG & CHEMO, Jul-1994
	Jahne et al., "Preparation of Carbocyclic Phosphonate Nucleosides", 33(37):5335-5338, TET LETT, 1992
	Jones et al., "Minireview: nucleotide prodrugs", 27:1-17, ANTIVIRAL RES, 1995
	Juodka et al, "Synthesis of Diribonucleoside phospho-(P->N)-Amino Acid Derivatives", 39:963-968, COLLECT CZECH CHEM COMMUN, 1974
	Karkas et al, "Stereochemical considerations in the enzymatic phosphorylation and antiviral activity of acyclonucleosides. I. Phosphorylation of 2'-nor-2'-deoxyguanosine", 911:127-135, BIOCHEM BIOPHYS ACTA, 1987
	Keim et al, "Amphotericin B Methyl Ester Hydrochloride and Amphotericin B: Comparative Acute Toxicity", 179(4073):584-585, SCIENCE, 1973
	Kern et al., "Comparison of Efficacy and Toxicity of HPMPC and Cyclic HPMPC in Animal Models for Severe Herpesvirus Infections", 26:A329 (poster), 8th ISAR Conference, Santa Fe, New Mexico, April 23 - 25, 1995

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EXAMR'S INITIALS	ARTICLE
	Kim et al, "A Novel Synthesis of 1-OXA-HPMPA: A Potent Antiviral Agent Against Herpes Viruses", 33 (1):pp. 25-28, TET LETT, 1992
	Kim et al, "Acyclic Purine Phosphonate Analogues as Antiviral Agents. Synthesis and Structure--Activity Relationships", 33:1207-1213, J MED CHEM, 1990
	Kim et al., "Synthesis and HIV Activity of Phosphonate Isosteres of D4T Monophosphate", 5(2):367-370, BIOORG MED CHEM LETT, 1992
	Kjaersgaard et al., "Synthesis of 5-Homologous AZT and D4T Derivatives", 46:1016-1020, ACTA CHEMICA SCANDINAVICA, 1992
	Kraus, "New Phosphonate Analogues of 3'-thia-2',3'-dideoxycytidine (BCH-189). Synthesis and Anti-HIV Evaluation.", 12(2):157-162, NUCLS & NUCLT, 1993
	Kumar et al., "Synthesis and Biological Evaluation of Some Cyclic Phosphoramidate Nucleoside Derivatives", 33:2368-2375, J MED CHEM, 1990
	Lee et al., "Tissue Distribution and Bioavailability of Cyclic HPMPA, an Intracellular Prodrug of HPMPA", 26:A340 (Poster), 8th ISAR Conference, Santa Fe, New Mexico, 1995
	Li et al, "Activity of (S)-1-(3-hydroxy-2-phosphonylmethoxypropyl)cytosine (HPMPC) against guinea pig cytomegalovirus infection in cultured cells and in guinea pigs", 13:237-252, ANTIVIRAL RES, 1990
	McGuigan et al, "Synthesis and anti-HIV activity of some haloalkyl phosphoramidate derivatives of 3'-azido-3'-deoxythymidine (AZT): potent activity of the trichloroethyl methoxyalaninyl compound", 15:255-263, ANTIVIRAL RES, 1991
	McGuigan et al, "Phosphoramidate derivatives of AZT as inhibitors of HIV: studies on the carboxyl terminus", 4(2):97-101, ANTIVIRAL CHEM & CHEMO, 1993
	Midoux, "Drug Targeting: Anti-HSV-1 Activity of Mannosylated Polymer-Bound 9-(2-Phosphonylmethoxyethyl Adenine", 167(3):1044-1049, BIOCHEM BIOPHYS RES COMM, 1990
	Mukaiyama et al, "Synthesis of Oligothymidylates and Nucleoside Cyclic Phosphates by Oxidation--Reduction Condensation", 94(24):8528-8532, J AM CHEM SOC, 1972
	Mullah et al., "Potential Prodrug Derivatives of 2',3'-Didehydro-2',3'-dideoxynucleosides. Preparations and Antiviral Activities", 35:2728-2735, J MED CHEM, 1992
	Nelson et al., "", 109:4058, J AM CHEM SOC, 1987
	Nielsen et al, "Evaluation of Glycolamide Esters and Various Other Esters of Aspirin as True Aspirin Prodrugs", 32:727-734, J MED CHEM, 1989
	Orchin, "The Vocabulary of Organic Chemistry", p. 283, , 1980
	Palu et al, "Cellular uptake of phosphonylmethoxyalkylpurine derivatives", 16:115-119, ANTIVIRAL RES, 1991

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	Reist et al, "Synthesis of Acyclonucleoside Phosphonates as Antiviral Agents Against Cytomegalovirus", 13(1-3):539-550, NUCLS & NUCLT, 1994
	Reymen et al., "Antiviral Activity of Selected Nucleoside Analogues Against Human Herpes Virus Type 6", 14:567-570, NUCLS & NUCLT, 1995
	Rosenberg et al, "Synthesis of Potential Prodrugs and Metabolites of 9-(S)-(3-Hydroxy-2-Phosphonylmethoxypropyl)Adenines", 52:2792-2800, COLLECT CZECH CHEM COMMUN, 1987
	Rosenberg et al, "Phosphonylmethoxyalkyl and Phosphonylalkyl Derivatives of Adenine", 53:2753-2777, COLLECT CZECH CHEM COMMUN, 1988
	Sastry et al, "Membrane-Permeable Dideoxyuridine 5'-Monophosphate Analogue Inhibits Human Immunodeficiency Virus Infection", 41:441-445, MOL PHARM, 1992
	Serafinowska et al., "Synthesis and in Vivo Evaluation of Prodrugs of 9-[2-(Phosphonomethoxy)ethoxy]adenine", 38:1372-1379, J MED CHEM, 1995
	Sergheraert et al., "Synthesis and Anti-HIV Evaluation of D4T and D4T 5'-Monophosphate Prodrugs", 36:826-830, J MED CHEM, 1993
	Shaw et al., "Salicylate Ester Prodrugs of Cyclic HPMP. I. Pharmacokinetics in Dogs.", 0.696527778, 7th North American ISSX Meeting, San Diego, CA, Oct. 20th - 24th, 1996
	Smee et al., "Potent Anti-Murine Cytomegalovirus Activity and Reduced Nephrotoxicity of Ganciclovir Cyclic Phosphonate", 40(8):1964-1966, ANTIMICRO AG & CHEMO, Aug-1996
	Snoeck et al, "Antiviral activity of anti-cytomegalovirus agents (HPMPC, HPMPA) assessed by a flow cytometric method and DNA hybridization technique", 16:1-9, ANTIVIRAL RES, 1991
	Snoeck et al, "New acyclic nucleoside phosphonate derivatives as inhibitors of human cytomegalovirus", p. 327, Abstract No. 1334, 29th INTERSCIENCE CONFERENCE ON ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, Sept. 17 - 20, 1989
	Snoeck et al., "", pp. 337, Progress in Cytomegalovirus Research, 1991
	Srivastva et al, "Bioreversible Phosphate Protective Groups: Synthesis and Stability of Model Acyloxymethyl Phosphates", 12:118-129, BIOORG CHEM, 1984
	Starrett et al, "Synthesis and in vitro evaluation of a phosphonate prodrug: bis(pivaloyloxymethyl) 9-(2-phosphonylmethoxyethyl)adenine", 19:267-273, ANTIVIRAL RES, 1992
	Starrett et al., "Synthesis, Oral Bioavailability Determination, and in Vitro Evaluation of Prodrugs of the Antiviral Agent 9-[2-(Phosphonomethoxy)ethyl]adenine (PMEA)", 37:1857-1864, J MED CHEM, 1994
	Sueoka et al., "Salicylate Ester Prodrugs of Cyclic HPMP. II. Species Differences in Metabolism In Vitro", 0.632638889, 7th North American ISSX Meeting, San Diego, CA, Oct. 20th - 24th, 1996

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EXAMR'S INITIALS	ARTICLE
	Sundaralingam et al., "Stereochemistry of Nucleic Acids and Their Constituents. XXVII. The Crystal Structure of 5'-Methyleneadenosine 3',5'-Cyclic Monophosphate Monohydrate, a Biologically Active Analog of the Secondary Hormonal Messenger Cyclic Adenosine 3',5'-Monophosphat...", 94(14):5070-5076, J AM CHEM SOC, 1972
	Tolman et al, "2'-nor-cGMP: A seco-Cyclic Nucleotide with Powerful Anti-DNA-Viral Activity", 128(3):1329-1335, BIOCHEM BIOPHYS RES COMM, 1985
	Trost et al., "", 2:777-778, Comprehensive Organic Synthesis, 1991
	Wolff-Kugel et al, "Synthesis of New Carbocyclic Phosphonate Analogs of Dideoxypurine Nucleotides", 32(44):6341-6344, TET LETT, 1991
	Wolff-Kugel et al., "Studies Towards the Synthesis of the Saturated and Unsaturated Carbocyclic Methylene Phosphonate Analogs of Dideoxyadenosine", 12(3&4):279-294, NUCLS & NUCLT, 1993
	Xiong et al., "Kinetic Analysis of the Interaction of Cidofovir Diphosphate with Human Cytomegalovirus DNA Polymerase", 51:1563-1567, BIOCHEM PHARM, 1996
	Yu et al, "Synthesis and Antiviral Activity of Methyl Derivatives of 9-[2-(Phosphonomethoxy)ethyl]guanine", 35:2958-2969, J MED CHEM, 7-Aug-1992
	Yuan et al., "Cyclic HPMPC: A Chemically Stable Intracellular Prodrug of HPMP", 41:30 (Poster), AAPS Western Regional Meeting, San Jose, CA, March 27 - 28, 1995
	van Wijk et al., "Synthesis, characterization and some properties of dideoxynucleoside analogs of citidine diphosphate diacylglycerol", 1165:45-52, BIOCHEM BIOPHYS ACTA, 1992

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DATE CONSIDERED

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



### Section 1. Preliminary statements

Applicants submit herewith patents, publications or other information of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose. To the extent that this submission includes an International Search Report, such Report is submitted to facilitate the Examiner's analysis of the references and not out of any belief that the International Searching Authority's construction of the relevance of the references has any bearing under United States Law.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 CFR 1.97 (g)), an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

### Section 3. Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted

This application relies, under 35 U.S.C. 120, at least on the earlier filing dates of prior applications:

Serial No. 09/247,497	, filed on	February 10, 1999
Serial No. 09/071,420	, filed on	May 1, 1998
Serial No. 08/617,849	, filed on	May 6, 1996
Serial No. 08/193,341	, filed on	February 8, 1994
Serial No. 08/123,483	, filed on	September 17, 1993

Copies of references are not supplied to the extent that they are found in the file history of the prior application(s). Copies of references that were not supplied in the prior application(s), if any, accompany this paper.

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**SIGNATURE OF ATTORNEY**

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